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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,932	03/06/2001	Michael J. Gormish	74451.P127D1	5639

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EXAMINER	
CHEN, WENPENG	

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/800,932	GORMISH ET AL.	
	Examiner	Art Unit	
	Wenpeng Chen	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 June 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/9,9/2,10/13/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Examiner's responses to Applicant's remark

1. Applicant's arguments filed on 6/29/2004 with respect to all the pending claims have been considered but are moot in view of the new ground(s) of rejection due to the amendments.

2. The amendments filed on 6/29/2004 overcome:

-- the objection to drawings set forth in paper #15;

-- the objection to specification set forth in paper #15;

-- the objection to Claims 15-17 set forth in paper #15;

-- the rejection to Claims 15-17 under 35 U.S.C. 112, second paragraph set forth in paper #15.

3. The Marcellin et al. reference ("An Overview of JPEG-2000," Michael W. Marcellin, et al., Proceedings of Data Compression Conference, DCC 2000, 28-30 March 2000, pages 523-541) is still qualified as 35 U.S.C. 102(a) because the following reasons.

-- The paper lists a set of authors (set A): Marcellin, Gormish, Bilgin and Boliek. Application 09/800,932 lists another set of authors (set B): Gormish and Wu. Because set A is not the same as set B, the paper is considered authored by an entity (set A) not the same as the invention entity (set B). Therefore, the paper is published by others.

-- In the filed declaration pursuant to 37 C.F.R. 1.132, Gormish only declared that he is an inventor of all the subject matter in the article related to performing progressive order

conversion. Gormish did not declare he is the sole inventor of the above-mentioned subject matter. Unless Gormish declared that he is the **sole** inventor of all the subject matter in the article related to performing progressive order conversion,

To reduce argument about the validity of Marcellin et al reference as a prior art, the Examiner cites other references for art rejections as discussed below.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1, 5, 9-10, 14, 18-20, 27, and 34 are rejected under 35 U.S.C. 102(a) as being anticipated by Christopoulos et al. ("The JPEG2000 STILL IMAGE CODING SYSTEM: AN OVERVIEW," Charilaos Christopoulos, et al., IEEE Transactions on Consumer Electronics, vol. 46, No. 4, November 2000, pages 1103-1127, hereafter referred as Christopoulos paper)

Christopoulos paper teaches a system (Fig. 1) comprising:

-- a memory storing a compressed image as a codestream in a first progression order; (In Fig. 1, the compressed data stream can be stored. The SNR progression order is stored with markers as explained in left column, page 1118.)

-- a progression order conversion parser to convert the codestream from the first progression order to a second progression order different than the first progression order by

reading one or more markers of the codestream to determine a current type of progression.

updating the one or more markers to specify a target type of progression and outputting packets of the codestream in an order conforming to the second progression order indicated by the updated one or more markers; (The SNR progression order is converted into resolution progression order with changed markers as explained in left column, page 1118. The old markers are read for conversion. New markers are added after conversion.)

-- wherein the parser:

- determines where packets exist in the codestream based on at least one marker; left column, page 1118)

- creates a structure specifying components in each packet; (right column, page 1106, right column, page 1110; section III.7 in page 1112; Tile, component, layer, resolution and precinct are specified in a packet.)

- reorders packets in the codestream using the structure to map the first progression order to the second progression order; (left column, page 1118)

-- wherein the codestream is a JPEG 2000 codestream; (left column, page 1118)

-- wherein the progression order conversion is performed using an array of packet structures, each of the packet structures corresponding to each layer of each tile in the codestream, and wherein the conversion is performed based on at least one of layer, resolution, component, and precinct progression information of the packet structures without having to decode and re-encode the codestream. (right column, page 1106, right column, page 1110; left column, page 1118; section III.7 in page 1112; Tile, component, layer, resolution and precinct are specified in a packet. The structure of the packets is a multiple-dimension array.)

The above passages also teach the corresponding methods of Claims 10, 14, 18 and 34.

The above passages also teach the corresponding apparatus of Claim 20.

Christopoulos paper teaches a JPEG-2000 coding system with JPEG-2000 algorithm. (Fig. 1; page 1120. The JPEG-2000 coding engine with the JPEG-2000 algorithm has been used to evaluate JPEG-2000 compression as shown in section V. For the JPEG-2000 coding system to operate, the JPEG-2000 algorithm shall be stored in a memory in the engine or system. The memory such as a hard disk is the article of Claim 19.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2, 6-8, 11, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christopoulos paper as applied to Claims 1 and 10, and further in view of Christopoulos et al. (US patent application publication 2001/0047517 cited previously, hereafter referred as Christopoulos patent publication.)

Christopoulos paper teaches the parental Claims 1 and 10 as discussed above. Christopoulos paper further teaches its applications to Internet and data access. (left column, page 1117)

However, Christopoulos paper does not teach the features related to (1) the intermediate progression order or (2) web server.

Christopoulos patent publication teaches a transcoder between a server and a client. In the transcoding arrangement, a client can also serve as another server. (sections 0020, 0035) The transcoding is performed among two or more network elements. The server can be a web server. (section 0012)

Christopoulos patent publication teaches the transcoder:

-- wherein the server, in response to receiving a request, performs the conversion and sends the codestream in the second format; (sections 0036-0038)

-- wherein a memory is part of a server that serves the image in response to requests wherein the request is received in response to an activation by a client on a first image having the first format and wherein in response to the request, a second image having the second format is presented to the client. (sections 0036-0038)

It is desirable to have flexibility of providing and accessing multimedia data among various network elements. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to combine the teachings of Christopoulos paper and Christopoulos patent publication to provide multimedia data through web servers connecting to devices of various capabilities, because the combination improves the above-mentioned flexibility.

In the combination, when data are transferred from a first network element to a second network element through an intermediate network element, the progression order can be changed from a first order of the first network element to an intermediate order of the intermediate network element and then to the second order of the second network element. The combination thus further teaches the recited features:

-- wherein the parser, in response to receiving a request, performs the conversion and sends the codestream in the second progression order;

-- wherein the memory is part of a server that serves the image in response to requests wherein the request is received in response to an activation by a client on a first image having the first progression order. and wherein in response to the request, a second image having the second progression order is presented to the client.

8. Claims 23-26 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Christopoulos paper as applied to Claims 5 and 14, and further in view of ISO/IEC 15444-1 (Information technology - JPEG 2000 image coding system - Part 1: Core coding system, 12/15/2000 cited in IDS filed 9/2/2004.)

Christopoulos paper teaches the parental Claims 5 and 14 as discussed above.

However, Christopoulos paper does not teach the features related to the recited markers.

ISO/IEC 15444-1 teaches a method and system:

-- wherein the marker indicates a starting point and an ending point of data associated with the respective packet; (pages 15, 16, 17, 20; section A. 8.1, page 52; section 8.2, page 53)

-- wherein the marker further indicates how the data should be handled during the progression order conversion; (page 42, A.6.6)

-- wherein the marker indicates at least one of whether the data is to be deleted, truncated, and one or more additional operations that are to be performed on the data; (page 42 indicates marker values for defining end of progression for layer, resolution, and component. COC in

pages 34-35 defines what to include and what not to include in the data stream. This selection is a kind of truncation and deletion.)

-- wherein the handling information is based on rate distortion information provided via one of a PLT/PPM and a PPT/PPM marker sets. (pages 48-52)

It is desirable to convert data according to a standard to broaden the application of this conversion. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use the JPEG standard taught in ISO/IEC 15444-1 in the system and method taught by Christopoulos paper for data transcoding, because the combination broadens application of system taught by Christopoulos paper.

9. Claims 3-4, 12-13, 21-22, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Christopoulos paper and Christopoulos patent publication as applied to Claims 2, 6, 11, and 15, and further in view of ISO/IEC 15444-1 (Information technology - JPEG 2000 image coding system - Part 1: Core coding system, 12/15/2000 cited in IDS filed 9/2/2004.)

The combination of Christopoulos paper and Christopoulos patent publication teaches the parental Claims 2, 6, 11, and 15 as discussed above.

However, Christopoulos paper does not teach the features related to the specific progression order of combination of layer, resolution, component, and position recited in the above claims.

ISO/IEC 15444-1 teaches a method and system:

-- wherein a progression order comprises a layer-resolution-component-position progression of JPEG 2000; (section B. 12, page 75-78)

-- wherein a progression order progression orders is one of the following groups of JPEG 2000 progression order: resolution-layer-component-position progression; resolution-position-component-layer progression; component-position-resolution-layer progression; and position-component-resolution-layer progression; (section B. 12, page 75-78)

-- wherein the request includes a command specifying a target progression order as the second progression order; (section B.12.3 starting at page 77)

-- wherein the intermediate progression order is a layer progression order and the second progression order is a target progression order other than the layer progression order. (section B.12.3 starting at page 77 teaches that any progression order can be applied to any one of transcoding device including the server or transcoder of Christopoulos patent publication.)

It is desirable to convert data according to a standard to broaden the application of this conversion. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use the JPEG standard taught in ISO/IEC 15444-1 in the system and method taught by the combination of Christopoulos paper and Christopoulos patent publication for data transcoding, because the combination broadens application of system taught by Christopoulos paper.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wenpeng Chen whose telephone number is 703 306-2796. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703 308-7452. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications. TC 2600's customer service number is 703-306-0377.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-4700.

Wenpeng Chen
Examiner
Art Unit 2624

January 19, 2005